

## **Remarks**

### ***Preliminary Remarks:***

Claims 18 to 50 are pending, of which claims 18 and 33 are independent. Claims 22–41, 43–47, and 49–50 previously were withdrawn. As suggested by the Examiner, Applicants submit herewith a declaration of Dr. Andreas van Almsick to support the data that was submitted in response to the non-final office action. Applicants respectfully submit that the present declaration overcomes the rejections under 35 U.S.C. § 101 and § 112, first paragraph (the only outstanding rejections), and thus places the application in condition for allowance. Entry of the declaration and the present response and allowance of the application are respectfully requested.

### ***Claim Rejections: 35 U.S.C. § 101***

The Examiner rejects claims 18–21, 42, and 48 under 35 U.S.C. § 101, arguing that the claims lack utility. Applicants respectfully traverse.

Applicants have asserted that the claimed compounds are strong herbicides. The Examiner has not set forth any rationale for why this claim is doubtful and thus has not set forth a *prima facie* case of lack of utility. Moreover, compounds 1–12, 34, 35, 145, 167, and 168 of Table 1 in the Specification have both pre- and post-emergent herbicidal activity. See Declaration of Dr. van Almsick, Tables 1, 2A, and 2B. Applicants thus submit that the present claims fully satisfy 35 U.S.C. § 101 and respectfully request withdrawal of this basis for rejection.

### ***Claim Rejections: 35 U.S.C. § 112, first paragraph***

The Examiner rejects claims 18–21, 42, and 48 under 35 U.S.C. § 112, first paragraph, arguing that the claims are not enabled by the specification. Applicants respectfully traverse.

As proposed by the Examiner, Applicants submit herewith a declaration of Dr. Andreas van Almsick supporting the data set forth in Tables 1, 2A, and 2B. As disclosed in these tables, compounds 1–12, 34, 35, 145, 167, and 168 were tested as described at pages 158–159 of the specification for a number of different weeds<sup>1</sup>. As explained by Dr. van

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1. The codes set forth in the tables appended to the declaration are commonly used “EPPO codes” for describing weeds. The particular weeds tested are as follows (EEPO Code:common name): ALOMY: Blackgrass; AVEFA: Wild Oat; ECHCG: Barnyardgrass; SETVI: Green Foxtail; ABUTH: Velvetleaf; AMARE: Redroot Pigweed; GALAP: Catchweed Bedstraw; IPOHE: Ivyleaf Morningglory; SINAL: White Mustard; POLCO: Wild Buckwheat; DATST: Jimsonweed. This nomenclature is well-known and commonly accepted in the art. See *European and Mediterranean Plant Protection Organization Code Plant Protection Thesaurus*, available at <http://eppt.eppo.org/index.php>. Printouts describing each code are attached hereto.

Almsick, all of the compounds have herbicidal activity (both pre- and post-emergent) for a number of different weeds at both 250 g/ha and 500 g/ha. These data clearly and unequivocally support enablement of the full scope of the claims.

Furthermore, Applicants have provided copious direction for making and using the presently claimed compounds. The preparation examples provide two general schemes for generating claimed compounds and describe 488 specific compounds which can be generated according to these general schemes. *See* Specification as Filed at pages 75–132. The specification further provides exemplary methods for testing the claimed compounds for herbicidal activity and discloses that at least compounds 2, 4, 5, and 6 exhibit strong pre-emergent activity against weeds; that compounds 2, 3, 4, and 5 exhibit strong post-emergent activities against weeds. Considering substituted aryl ketones are known to exhibit herbicidal activity (*see* Specification at line 7–18), these results enable a person of ordinary skill in the art to make and use the presently claimed compounds and methods.

Nonetheless, the Examiner has evaluated four factors in asserting lack of enablement. Applicants address each in turn:

*Nature of the invention and breadth of the claims*

The Examiner notes that the present claims relate to novel substituted aryl ketones of formula (I), pesticidal compositions thereof, and methods of preparing a pesticidal composition. This is all correct. However, the Examiner erroneously argues that the specification “alleges that these compounds show strong activity against weeds and . . . are well tolerated by crop plants . . .” The specification does more than “allege” these results; rather, the section cited by the Examiner describes a method of testing the compounds for herbicidal activity and states unequivocally that “in this test . . . the compounds according to Preparation Examples 2, 4, 5, and 6 exhibit strong [pre-emergent] activity against weeds” and that “the compounds according to Preparation Examples 2, 3, 4, and 5 exhibit strong [post-emergent] activity against weeds . . .” Specification as Filed at pages 158–159. These are not “prophetic” examples as the Examiner characterizes them, but unequivocal statements that 5 of the exemplary compounds have herbicidal activity, three of which have both pre- and post-emergent activity. These statements are evidence of enablement.

*The state of the prior art and the predictability*

The Examiner argues that there is “absolutely no predictability” for herbicidal activity of the presently claimed compounds. Applicants disagree. As explained above, the specification sets forth two specific procedures for testing both pre- and post-emergent activity and unequivocally states that, upon performing these tests, at least five of the

presently claimed compounds have strong herbicidal activity, three of which have both pre- and post-emergent activity. Further, the specification discloses numerous other documents that describe substituted aryl ketones having herbicidal activity. As such, the argument that there is “absolutely no predictability” is simply not supported by the facts.

Nonetheless, as explained above, the Declaration of Dr. van Almsick discloses that compounds according to claim 1 having a wide variety of substituents have strong pre- and post-emergent herbicidal activity. Applicants respectfully submit that this evidence demonstrates that herbicidal activity can be extrapolated across the entire scope of the claimed genus with a reasonable degree of predictability.

*The amount of direction or guidance and quantity of experimentation needed*

The Examiner acknowledges that copious guidance is provided regarding how to synthesize the presently claimed compounds, but again focuses on the lack of “data” showing herbicidal activity as a reason to find a lack of guidance. Applicants respectfully disagree. As set forth above, the specification actually does provide “data” in the form of an unequivocal statement that at least five compounds of the present claims were tested and shown to have herbicidal activity. The Examiner has not explained why hard data is necessary to extrapolate these results to the full scope of the present claims.

The Examiner also argues that no indication was given as to what types of weeds were tested. Applicants respectfully submit that this is irrelevant, as the claims are not limited to specific types of weeds. Nonetheless, Applicants have shown in the present declaration that the claimed compounds are herbicidally effective for a broad variety of weeds. Applicants thus respectfully submit that Applicants have provided plenty of guidance so that a person of ordinary skill in the art could determine which compounds are effective “with expenditure of no more effort than is normally required in the art.” M.P.E.P.

§ 2164.08(b).

*Conclusion*

In light of the present declaration and the teachings of the specification, Applicants respectfully submit that the claims are fully enabled. Applicants therefore respectfully request that this basis for rejection be withdrawn.

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Inventor(s): HOISCHEN et al.  
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**CONCLUSION**

In view of the remarks above, Applicants respectfully submit that this application is in condition for allowance and request favorable action thereon. The Examiner is invited to contact the undersigned if any additional information is required.

Any fees that are required may be charged to Deposit Account No. 50-4254, referencing Attorney Docket No. 2903925-137000.

Customer No.: 84331

RESPECTFULLY SUBMITTED,

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